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Miell Agri-Business Agricultural Insights

2016 — A Look at What's Ahead

Now that the 2015 corn, soybeans, wheat and sorghum season is in the record books, attention turns to analyzing the agricultural sector's fortunes for the year ahead and the outlook for the coming 2-5 year investment horizon.

A number of key issues are in focus: commodity supply and demand forecasts, commodity prices, interest rates, exchange rates, land prices, oil prices, farm input prices and farm operating options.

With commodity prices continuing to trade at levels not seen since 2009-10, the past two seasons have delivered challenging and declining profitability outcomes for U.S. grain producers. A saving factor has been record, or near-record yields that have offset, to a limited degree, major commodity price declines.

One key outcome of the current grain trading conditions is attention on all cost factors associated with farm production. This is positive, as it is bringing into clear focus the agricultural sector's commitment to precision agriculture, sustainability and big data analytical solutions to drive productivity and business efficiency.

The latest United States Department of Agriculture (USDA) World Supply & Demand Estimates (WASDE) for corn, soybeans and wheat reveal rising global production, increasing ending stocks and stagnant demand forecasts. Analyzing the key messages contained in these numbers and juxtaposing them against the global challenges of emerging long-term mega-trends is necessary to place today's market conditions into the correct perspective.

Global population growth, land use challenges, expanding urbanization, access to water supplies, arable land availability, climate change, rising living standards and increasing demand for protein remain the backdrop that must frame long-term agricultural production and investment decisions. These benefits and impacts of these major mega trends are not going to be derailed, diverted or slowed by one or two years of record grain production or price fluctuations.

The January WASDE numbers, (see Table 1 page 2) reveal the extent of the short -term challenge for U.S. producers. Globally, in 2015, most major production regions experienced favorable growing conditions. Yields were high, harvest was completed with little delay, resulting in expanding global stocks.

Exchange rate movements have changed the trade dynamics for U.S. exporters, as the strong US$ has reduced demand for U.S. grains and oilseeds, in favor of supplies sourced from regions with more competitive trade circumstances.

When combined with the U.S. Federal Reserve's December decision to raise interest rates for the first time since 2008, overall business conditions for agricultural producers are likely to remain challenging through 2016.

For investors, while farm rental rates and farm values are, in some regions, under downward pressure, there is resilience in both these values.

This resilience is aided by trading conditions on major stock markets that are all exhibiting significant decline in values so far in 2016, a factor that adds to the attraction of agricultural land as a stable investment alternative.

As a diversified investment option, prime agricultural land retains its investment status and should remain in an investor's portfolio consideration under current market conditions.

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The Data in Detail

The data is out for the 2015 production year. Following the release of USDA's January WASDE report detailing 2015 production numbers and 2016 production forecasts, attention is now focused on analyzing impacts, options and opportunities for the coming production year. Table 1 summarizes estimates for U.S. production, including USDA's forecast average farm price ranges, for major farm commodities for the coming year.

Table 1. USDA's January 2016 Crop Planting & WASDE Production Forecasts

Commodity	2015 Acreage (million)	2016 Acreage estimate (million)	Acreage Change (million)	Estimated 2016 Yield (bushels/acre)	Forecast 2016 Production (million bushels)	Average Farm Price Range 2105-16	Futures Price (February 5, 2016)
Corn Planted	90.6	88.0	-2.6	168.4	13,601	$3.30-$3.90 (per bushel)	$3.65 (per bushel)
Soybeans Planted	83.3	82.7	-0.6	48	3,930	$8.05-$9.55 (per bushel)	$8.67 (per bushel)
All Wheat Planted	56.8	54.6	-2.2	43.6	2,052	$4.90-$5.20 (per bushel)	$4.66 (per bushel)
Sorghum Planted	7.1	8.7	+1.6	76	597	$3.05-$3.55 (per bushel)	$5.60 (per bushel)
All Rice Planted	2.95	2.61	-0.34	7,470 (cwt/acre)	192.3 (million cwt)	$12.70-$13.70 (per cwt)	$11.12 (per cwt Rough Rice)
Cotton Planted	11.04	8.58	-2.46	766 (lbs/acre)	12.94 (million 480 lbs bales)	$0.57-$0.61 (per lb)	$0.60 (per lb)

Source: USDA

Globally, on an aggregate basis, ending stocks for most agricultural commodities are at levels that reflect recent record production levels. Table 2 lists global ending stocks as at January 2016. There are no significant supply shortfalls to stimulate price increases, although prices are now at levels low enough to build demand for all commodities.

Table 2. Global Ending Stocks

Commodity	2014/15	2015/16	Ending Stocks Change (million ton)	Ending Stocks Change (percentage)
Corn - (million metric ton)	207.23	208.94	+1.71	+0.83%
Soybeans - (million metric ton)	76.93	79.28	+2.35	+3.05%
Wheat - (million metric ton)	212.72	232.04	+19.32	+9.08%
Sorghum - (million metric ton)	n/a	n/a	n/a	n/a
Rice - (million metric ton)	103.85	89.70	-14.15	-13.63%
Cotton - (million 480 lb Bales)	112.07	102.86	-9.21	-8.22%

Source: USDA

Focus on Costs, Technology & Sustainability

For the past two years, global grains production levels, when combined with continuing commodity price declines has increased the urgency for farmers to review all costs of production, as well as consider opportunities to apply new technologies to production and management practices to further reduce costs, increase farm productivity and enhance profitability.

While record or near record yields partly offset commodity price declines, few grain farms generated profitable returns in 2014 and 2015.

As we look ahead to 2016, based on January 2016 price and production forecasts, total farm revenues are likely to decline further when compared to levels achieved in recent years.

This is not a scenario for long-term success.

The pressure on cash surpluses has sharpened farmer's focus on reducing 2016 crop input costs for seed, fertilizer, chemicals, fuel and machinery and land costs.

Some of these costs have declined slightly from 2015 levels, however, projected profit margins for 2016 crop production are still below breakeven levels for many producers suggesting that further pressure will be placed on input usage and overall farm costs.

There are opposing forces at work that will impact the degree by which costs can be reduced. Sharp declines in global energy prices will continue to flow through input prices for fuel , chemicals, fertilizers and transportation costs.

That is positive news.

However, the U.S. Federal Reserve's decision to start increase interest rates will place upward pressure on borrowing costs for both operating and capital expenditures and, depending on the trend of key economic indicators, further interest rate rises may occur during 2016.

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With land costs being a major cost for many farmers, farm rents in some areas will come under pressure as farmers seek to negotiate lower prices. On the flipside of these negotiations, investors will be keen to maintain existing rental returns.

In the agricultural sector, the pace and scope of change will ensure that future farm operations will be much different than anything previously experienced.

So far, there has not been a significant, lower realignment of rents . Some higher rents have been reduced, many have not changed, most will probably stay very close to 2015 levels.

Flex rent arrangements are increasingly popular as this option shares the risk and reward more equitably between both farmer and investor. This option demonstrates that farmers and investors are willing to work together to achieve win-win outcomes where all parties achieve workable outcomes during this period of soft commodity prices.

Astute farm managers have recognized the need for and opportunity to utilize new-age technologies to fine-tune production and management practices and realign capital spending to lower overall production costs and better manage all available resources.

For investors, application of new technologies and practices is delivering sustainable asset management that is enhancing and protecting asset values.

Focus on Costs, Technology & Sustainability cont.

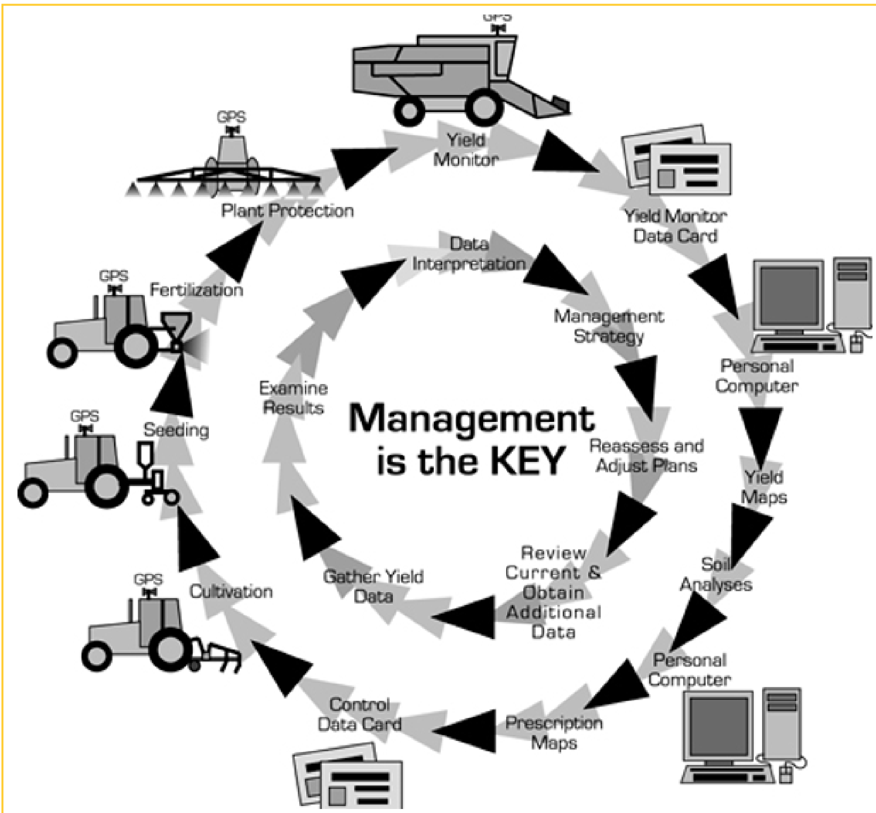
Technology Options

A transformation of agriculture is happening right now that is being driven by the use of sensor technologies, big data analytics, precision farming practices and the application of a wide range of scientific tools on farms.

Current profitability scenarios are encouraging farmers to seek specialized technologies and new management solutions to achieve sustainable and profitable outcomes.

The status quo for many farmers is no longer good enough. It is certain not attractive to younger generations who are comfortable with and challenged by the benefits of today's technology platforms.

Today's Emerging Farm Management Platform



Just as we've seen in other industries – like energy, telecommunications and manufacturing – high quality data can enable individuals farmers to achieve greater results faster than ever before.

High-quality, accurate data, sourced from both on-farm applications and external sources such as satellite images, can help farmers and their advisors validate investment decisions, create a baseline for future performance expectations and establish a plan of action for 2016.

There are a lot of really good, affordable technologies now available, the trick is quickly turning information around in time to influence management and investment decisions.

In a period of soft commodity prices, timely, informed actions can mean the differences between a farm that turns a healthy profit and one that struggles to pay its input invoices.

Farmland – Still A Quality Investment Option

In both instances, farmland and timberland values have, over the long-term, almost always exceeded annual rates of inflation.

Ongoing population growth, supported by economic progress in emerging markets such as China, Indonesia and India has resulted in significant increases in the global demand for agricultural commodities, timber products and quality, productive arable farmland.

Global farmland and timberland investment opportunities are benefiting from this growth in global demand, a direct reflection of increasing populations and disposable incomes in these economies.

In particular, the US and Australian farmland markets are beneficiaries of this market growth and this is evident in investors' continued interest in cropping and livestock operations in both countries.

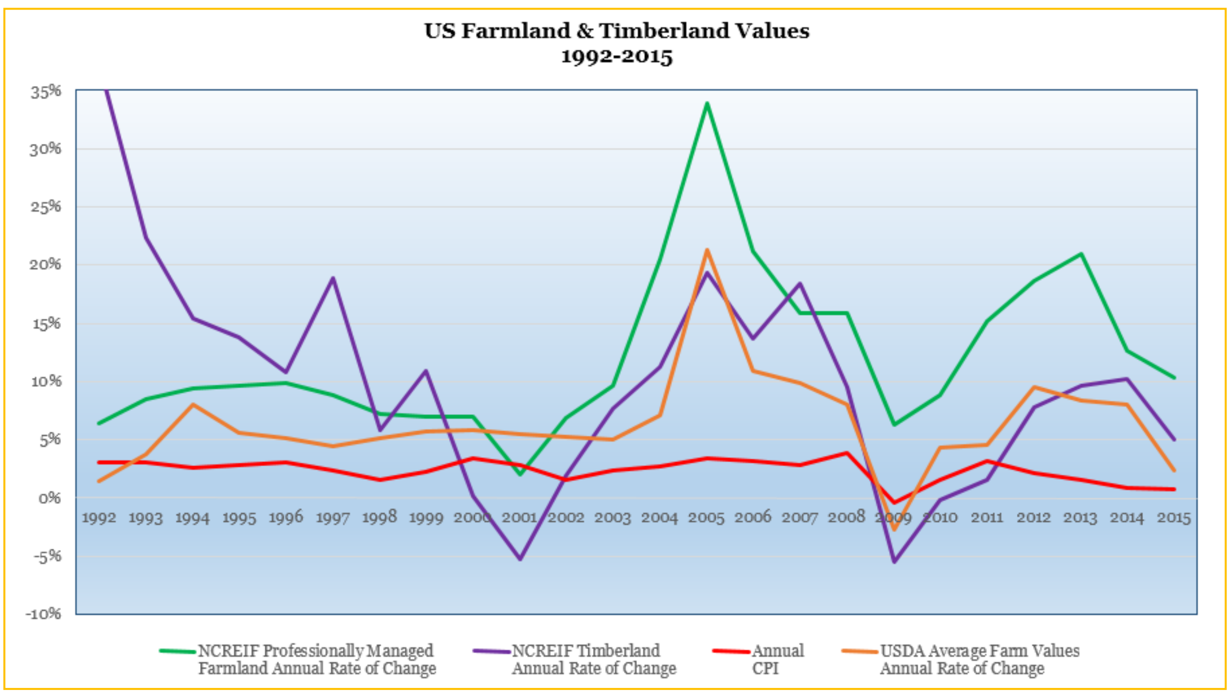
In addition to the stimulus these two factors are providing to farmland and timberland investments, a further attraction of this asset class is the fact that farmland and timberland investments have historically kept pace with inflation and demonstrated little correlation with other more 'traditional' investment options.

Farmland values/inflation relationships since the early 1990s are illustrated in Graph 1, where the NCREIF Index of professionally managed farms and the USDA's annual farmland values data are juxtaposed against US annual inflation data.

In both instances, farmland and timberland values have, over the long-term, almost always exceeded annual rates of inflation.

These data illustrate the attractiveness of considering the inclusion of agricultural assets to introduce diversification into investment portfolios. The data reveals that farmland and timberland are credible hedges against inflationary pressures.

Graph 1. Farmland and Timberland Values Compared to Annual Inflation Trends



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